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**Prudential**

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January 15, 1998

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
1919 M Street, N.W., Room 222  
Washington, D.C. 20554

Re: Notice of Ex Parte Communication;  
Broadband PCS C and F Block Installment  
Payment Restructuring; WT Docket No. 97-82

Dear Ms. Salas:

On Wednesday, January 14, Michael Elling and the undersigned of Prudential Securities Inc. ("Prudential") met with David Siddall of the Commission to discuss issues in the above-referenced proceeding. The views expressed by Prudential's representatives are included in the attached material which was distributed at the meeting.

In accordance with Section 1.1206 of the Commission's rules, an original and two copies of this filing are being submitted to you today. Please direct any questions concerning this matter to me at (212) 778-2356.

Sincerely,

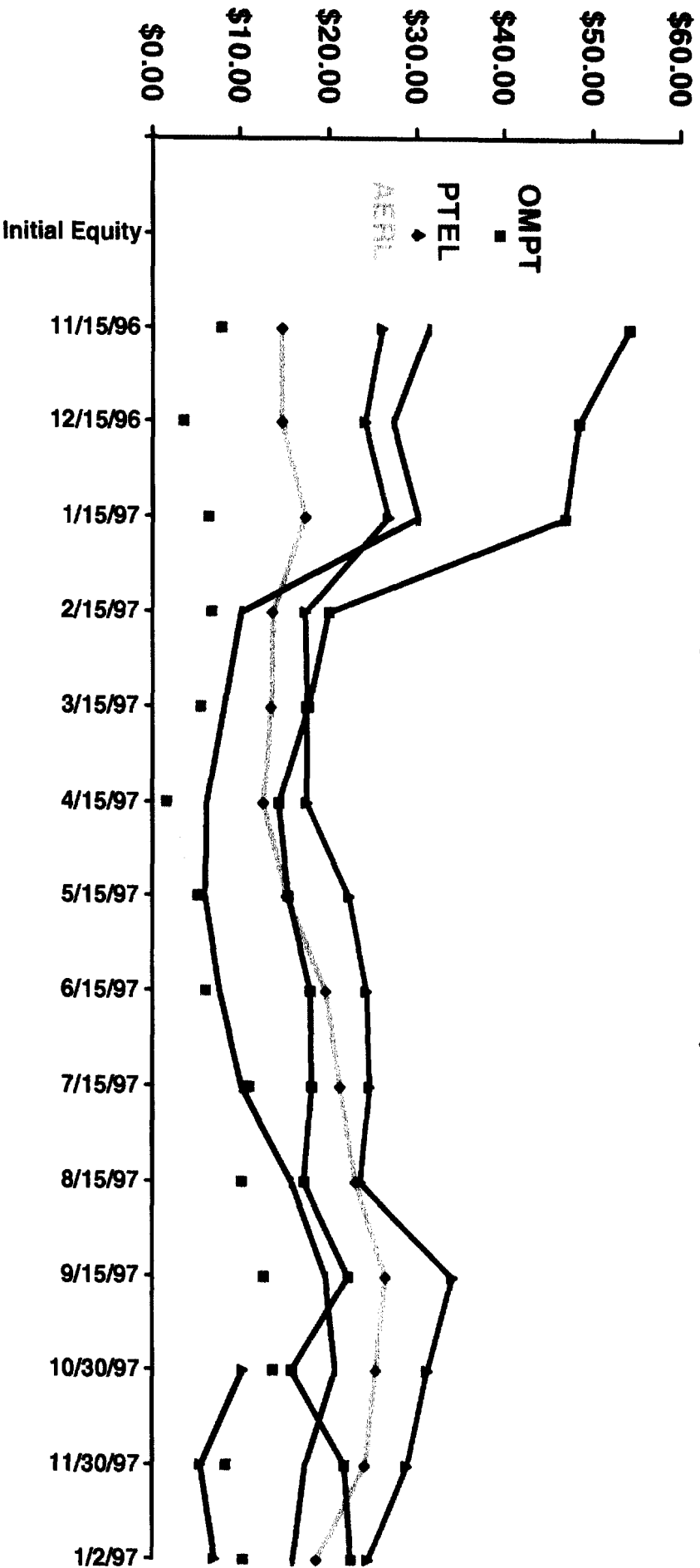
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# Public Market Trends

Recent Market Valuation Trends (PCS License Value Per POP)



# Public Market Comparable Valuations

*(all figures in pro forma \$ per Absolute Net POP<sup>1</sup>)*

	<u>Aerial Comm.</u>	<u>PowerTel</u>	<u>Omnipoint</u>	<u>Western Wireless</u>
<b>Closing Stock Price (1/2/98)</b>	<b>\$7.188</b>	<b>\$17.125</b>	<b>\$22.50</b>	<b>\$18.00</b>
<b>PCS Enterprise Value / POP<sup>2</sup></b>	<b>\$40.19</b>	<b>\$48.33</b>	<b>\$37.38</b>	<b>\$48.30</b>
<b>Implied PCS License Value / POP<sup>3</sup></b>	<b>\$18.70</b>	<b>\$27.32</b>	<b>\$29.93</b>	<b>\$28.42</b>

<sup>1</sup> Absolute Net POP: 10 Mhz license = 33% of 30 Mhz license; 20 Mhz license = 66% of 30 Mhz license

<sup>2</sup> PCS Enterprise Value = Total Enterprise Value - Other Non-PCS Assets

<sup>3</sup> Implied PCS License Value = PCS Enterprise Value - CapEx - NPV of Added Subscribers

# Information on Selected PCS Companies

(all values in millions except per share and per POP values)

2-Jan-98	Aerial Comm.	Microcell	Clearnet	PowerTel	Omnipoint (OPCSE)	Orange plc	Western Wireless	Nextel Comm
<b>General Data</b>								
30 MHz POPs (Year)	27.3 <sup>(2)</sup>	29.5 <sup>(2)</sup>	29.5 <sup>(2)</sup>	16.9 <sup>(1)</sup>	40.4 <sup>(2)</sup>	58.4 <sup>(2)</sup>	19.5 <sup>(1)</sup>	0.0
20 MHz POPs	NM	NM	NM	5.3 <sup>(1)</sup>	16.6 <sup>(1)</sup>		0.3 <sup>(1)</sup>	0.0
10 MHz POPs	NM	NM	NM	0.9 <sup>(1)</sup>	56.3 <sup>(1)</sup>		37.56 <sup>(1)</sup>	246.0 <sup>(4)</sup>
Gross POPs (footprint)	27.3	29.5	29.5	23.2	93.4	58.4	57.4	246.0
Heavyweight Net POPs (10 MHz = 85%, 20 MHz = 100%)	27.3	29.5	29.5	23.0		58.4	51.7	209.1
Weighted Net POPs (10 MHz = 50%, 20 MHz = 75%)	27.3	29.5	29.5	21.4	81.0	58.4	38.5	123.0
Absolute Net POPs (10 MHz = 33%, 20 MHz = 66%)	27.3	29.5	29.5	20.8	70.2	58.4	32.2	82.0
<b>License Acquisition Costs per POP</b>								
License Bid Amount								
(C and B Block)	\$269.2	N/A	N/A	\$325.4 <sup>(d)</sup>	\$856.6	NA	\$210.7	NA
(D-E-F Block)	\$369.2	--	--	31.3	181.4		75.8	NA
License Fee Paid per Net POP			12.0					
(C and B Block)	\$10.59	\$5.13 <sup>(a)</sup>	\$5.13 <sup>(a)</sup>	\$19.25 <sup>(d)</sup>	\$21.20	NA	\$10.81	NA
(D-E-F Block (10MHz))	--	--	--	2.69	2.03		1.98	NA
<b>Valuation Data</b>								
Current Price per Share 1-2-98	\$7.15	\$6.12	\$11.34	\$17.15	\$22.12	\$13.8	\$18	\$26.15
Balance Sheet Date	9-30-97	9-30-97 <sup>(b)</sup>	9-30-97 <sup>(b)</sup>	9-30-97	9-30-97	6-30-97	9-30-97	9-30-97
Number of Shares Outstanding pro forma	71.6	46.2	42.9	26.9	51.7	1,198.0	90.2 <sup>(h)</sup>	242.7
Options & Warrants	0.0	9.3	0.0	12.6	3.5	0.2	1.9	72.9
Total Adjusted Shares Outstanding	71.6	55.5	42.9	39.5	55.2	1,198.2	92.2	315.6
Pro Forma Equity Market Capitalization	\$514.6	\$360.7	\$504.5	\$677.1	\$1,241.4	\$5,241.4	1,658.7	8,265.6
Pro Forma Debt	\$583.0	\$499.8	\$469.9	\$785.1	1,539.8	1,530.4 <sup>(f)</sup>	1,369.2 <sup>(h)</sup>	5,336.9
Debt from D-E-F auction	--	--	--	0.0				
Total Pro Forma Debt	583.0	499.8	469.9	785.1	1,539.8	1,530.4	1,369.2	5,336.9
Pro Forma Cash	0.4	392.9	242.7	414.2	157.5	54.8	343.5	1,859.5
PF Net Debt	582.6	107.0	227.2	370.9	1,382.4	1,475.6	1,025.7	3,477.5
PF Enterprise Value	1,097.2	467.7	731.7	1,048.0	2,623.7	6,717.0	2,684.4	11,743.1
Other Assets	0.0	0.0	202.4	44.3	0.0	42.0	1,128.0	0.0
						22.8		
						148.1		
Total Other Assets	0.0	0.0	202.4 <sup>(c)</sup>	44.3 <sup>(e)</sup>	0.0	212.9 <sup>(g)</sup>	1,128.0 <sup>(i) (h)</sup>	0.0
Cap Ex	568.9	250.3	223.1	418.4	501.2	1,196.6	613.3	3,164.5
SUBS ('000's)	65.0	22.5	NA	66.1	80.0	1,200.0	101.0	946.6
NPV per Sub	271.56	271.56	271.56	271.56	271.56	271.56	271.56	271.56
NPV of Subscribers	17.7	6.1	0.0	17.9	21.7	325.9	27.4	257.1
Capital Exp. + NPV of subs	586.6	256.4	223.1	436.3	522.9	1,522.5	640.7	3,421.6 <sup>(j)</sup>

## Information on Selected PCS Companies

(all values in millions except per share and per POP values)

2-Jan-98	Aerial Comm.	Microcell	Cleantel	PowerTel	Omnipoint (OPCSE)	Orange plc	Western Wireless	Nextel Comm
<b>Pro Forma PCS Enterprise Value (5)</b>	<b>\$1,097.2</b>	<b>\$467.7</b>	<b>\$529.3</b>	<b>\$1,003.6</b>	<b>\$2,623.7</b>	<b>\$6,504.1</b>	<b>\$1,556.4</b>	<b>\$11,743.1</b>
per footprint POP	\$40.19	\$15.85	\$17.94	\$43.31	\$28.09	\$111.38	\$27.13	\$47.74
per heavyweight net POP	\$40.19	\$15.85	\$17.94	\$43.58	#DIV/0!	\$111.38	\$30.08	\$56.16
per weighted net POP	\$40.19	\$15.85	\$17.94	\$46.97	\$32.41	\$111.38	\$40.42	\$95.47
per absolute net POP	\$40.19	\$15.85	\$17.94	\$48.33	\$37.38	\$111.38	\$48.30	\$143.22
<b>Implied PCS License Value (6)</b>	<b>\$510.6</b>	<b>\$211.3</b>	<b>\$306.2</b>	<b>\$567.3</b>	<b>\$2,100.8</b>	<b>\$4,981.7</b>	<b>\$915.7</b>	<b>\$8,321.5</b>
per footprint POP	\$18.70	\$7.16	\$10.38	\$24.48	\$22.50	\$85.31	\$15.96	\$33.83
per heavyweight net POP	\$18.70	\$7.16	\$10.38	\$24.63	#DIV/0!	\$85.31	\$17.70	\$39.80
per weighted net POP	\$18.70	\$7.16	\$10.38	\$26.55	\$25.95	\$85.31	\$23.78	\$67.65
per absolute net POP	\$18.70	\$7.16	\$10.38	\$27.32	\$29.93	\$85.31	\$28.42	\$101.49
<b>Implied Business Plan Value (7)</b>	<b>\$221.4</b>	<b>\$60.0</b>	<b>\$154.9</b>	<b>\$210.7</b>	<b>\$1,062.8</b>	<b>\$4,981.7</b>	<b>\$629.3</b>	<b>\$8,321.5</b>
per footprint POP	\$8.11	\$2.03	\$5.25	\$9.09	\$11.38	\$85.31	\$10.97	\$33.83
per heavyweight net POP	\$8.11	\$2.03	\$5.25	\$9.15	#DIV/0!	\$85.31	\$12.16	\$39.80
per weighted net POP	\$8.11	\$2.03	\$5.25	\$9.86	\$13.13	\$85.31	\$16.34	\$67.65
per absolute net POP	\$8.11	\$2.03	\$5.25	\$10.14	\$15.14	\$85.31	\$19.53	\$101.49

(1) 1990 POPs

(2) 1995 POPs

(3) 1996 POPs

(4) 1997 POPs

(5) Enterprise Value less Other Assets

(6) Enterprise Value less Other Assets, Cap Ex. and NPV of Subs.

(7) Enterprise Value less Other Assets, Cap Ex. NPV of Subs and License Acquisition Costs.

# Information on Selected PCS Companies

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## Footnotes

### Aerial Communications

- (\*) Includes \$87.25 million in current trade liabilities payable to Nokia pursuant to a vendor financing agreement that the Company was planning on taking out with the issuance of a zero in the 4th quarter but has not yet done so.

### Clearent Communications Inc. and Microcell Telecommunications

- (a) Estimated. Represents the net present value (discounted at 15%) of expected future annual license fees.  
(b) All currency items are presented in U.S. dollars. Conversion where applicable is Cdn \$1.00 = US \$.734. \$ 0.734  
(c) Includes value attributable to ESMR assets (\$11 (US) per POP, or approximate 75% discount to NEXTEL valuation).

### PowerTel

- (d) Includes \$195 million (\$28.09 per POP) paid to GTE for the Atlanta MTA.  
(e) Includes 295,600 net cellular POPs valued at \$150 per POP.

### Orange plc

- (f) All pound sterling amounts for Orange plc have been calculated using exchange rate of \$ 1.6403 per £1.00  
(g) Other Assets is made up of the following:  
\$42.0 Reflects value of 105,000 cellular reseller subscribers at \$400 per subscriber.  
\$22.8 Reflects value of 57,000 paging subscribers at \$400 per subscriber.  
\$148.1 Reflects value of acquisition of 114,000 French and 108,000 German cellular reseller subscribers for a total of £57.1 million, which translates to \$396.36 per subscriber.  
(Which number 221,000 and 153,000 respectively as of 6/30/97)  
\$1,196.6 Reflects company wide PP&E investment of £927.7 million invested from 1/1/95 to 6/30/96.

### Western Wireless

- (h) Pro Forma for Triad cellular assets. Includes \$184 mm in debt and 1.6 mm share of Class A Common issued for 1 mm POPS with 55,000 subs.  
Pro Forma for Hutchinson Investments of 5% of the company (i) 3.88 mm shares for \$74.0 mm completed 11/26/97 and (ii) agreement to sell 19.9% of the Company for 284.0 MM in the first or second quarter of 1998.  
(i) Includes 6MM cellular POPs valued at \$150 per POP.

### Nextel Communications

- (j) Total PP&E is since inception through 9/30/97.

# Primary Underwriters for Public Wireless Telecommunications Debt and Equity Issues

1/1/94 - 6/30/97

	CS First Boston	DLJ Securities	Goldman Sachs	Lehman Brothers	Merrill Lynch	Morgan Stanley	Salomon Brothers
Airtouch				X	X		X
AT&T	X	X	X	X	X	X	X
Bell South			X	X	X	X	X
GTE		X	X			X	
Nextel	X					X	
SBC Communications			X		X	X	X
Sprint PCS		X		X	X		X
US West		X	X	X	X	X	X
360 Communications				X	X		X
Aerial Communications		X					
Omnipoint		X					X
Powertel						X	
Western Wireless		X	X		X		X

# Information on Selected PCS Companies - Valuations at Offerings

(all values in millions except per share and per POP values)

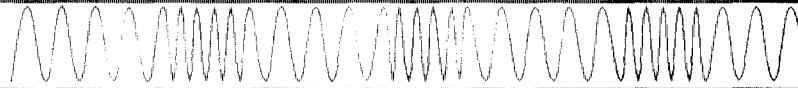
	IPO 4/25/96		6/2/97		Secondary 2/1/96		Sr Dis Nts '06 4/16/96		6/2/97		IPO 1/25/96		Secondary 6/27/96			
	Aerial Comm.		Aerial Comm.		Clearnet		InterCel, Inc.		InterCel, Inc.		Omnipoint (OPCSE)		Omnipoint (OPCSE)			
Technology	GSM		GSM		CDMA		GSM		GSM		GSM/IS 661		GSM/IS 661			
30 MHz POPs (Year)	27.3	(1995)	27.3	(1995)	29.5	(1995)	9.0	(1990)	16.0	(1990)	16.9	(1996)	26.8	(1994)		
20 MHz POPs	NM		NM		NM						5.3	(1990)				
10 MHz POPs	NM		NM		NM						0.9	(1990)		\$0		
Gross POPs (footprint)	27.3		27.3		29.5		9.0		16.0		23.2		26.8			
Net POPs (30 MHz equivalent)	27.3		27.3		29.5		9.0		16.0		20.8		26.8			
Stock Offering Data																
Status	Completed				Completed				Completed				Priced 6/27/96			
Shares Offered/ Filed	4/25/96				5/22/96				2/1/96				Priced 1/25/96			
% of company post offering	\$12.25				9.2				7.1				8.1			
Offering/ Mid-Point Price	17.2%				23.0%				25.6%				13.5%			
Size	\$17.00				\$19.00				\$16.50				\$16.00			
	\$208.25				\$174.50				\$121.66				\$117.55			
License Acquisition Costs per POP																
License Bid Amount																
(C and B Block)	\$289.20				\$289.2				\$130.3				\$325.3			
(D-E-F Block)	0.0				0.0				--				31.3			
License Fee Paid per POP																
(C and B Block)	\$10.59				\$10.59				\$5.13				(a)			
(D-E-F Block (10MHz))	0.0				0.0				--				2.69			
Valuation Data																
Current Price per Share	\$17.00				\$8.7/8				\$11.5/8				\$16.1/2			
6/2/97	(4/25/96)								(2/1/96)				(4/16/96)			
Balance Sheet Date	12/31/95				3/31/97				3/31/97				12/31/95			
Number of Shares Outstanding, pro forma	871.34				71.5				40.0				28.8			
Adjusted Shares due to Options & Warrants	80.00				0.0				0.0				0.00			
Total Adjusted Shares Outstanding	71.3				71.5				40.0				28.8			
Pro Forma Equity Market Capitalization	\$1,212.7				\$634.5				\$465.4				\$474.94			
(+) Pro Forma Debt	\$0.00				\$188.30				\$213.9				(b)			
(+) Debt from D-E-F auction	\$0.00				\$0.00				--							
Total Pro Forma Debt	\$0.00				\$188.30				\$213.95				\$193.91			
(-) Pro Forma Cash	\$395.20				\$7.40				203.3				(b)			
(-) Capital Exp. + Marketing Exp.	\$0.00				\$197.55				62.0				\$0.00			
(-) Other Assets	\$0.00				\$0.00				202.4				(c)			
(=) Pro Forma PCS License Value	\$817.5				\$617.9				\$211.6				\$273.8			
Implied License Value per footprint POP	\$29.95				\$22.63				\$7.17				\$30.42			
Implied License Value per Net POP	\$29.95				\$22.63				\$7.17				\$30.42			
Implied PCS Enterprise Value per footprint POP	\$29.95				\$29.87				\$9.28				\$30.42			
Implied Value per Net POP (n)	\$29.95				\$29.87				\$16.14				\$41.98			



# Spectral Shifts

Michael Elling  
(212) 778-4768

September 22, 1997



## **Recommendations For The Next FCC Commissioners**

The problems at the FCC over C-Block license debt highlight a larger issue with telecom regulations, namely that regulators are terrible risk takers in a risky and fast-changing world. We believe, furthermore, that regulators never did and never will appreciate the dynamics of two-way communications, otherwise they wouldn't have split-up AT&T. They exhibit a strong "access" bias in their thinking, particularly as they appear to fear the scalability and power of centralized networks. Regulatory policy over the past 100 years has managed to create a balkanized state of affairs in the U.S., otherwise referred to as the "Yugoslavia" of communication networks. The only party that has really benefited from this policy approach is investment bankers who earn tremendous fees repairing and rebuilding what the regulators have torn asunder with the best of utopian intentions. The current FCC in particular, under Chairman Reed Hundt and Commissioners Chong, Ness and Quello, will likely go down as one of the least successful ever, not because the individuals were any different than in the past, but because they were not prepared to deal effectively and realistically with the challenges of deregulating during this period of massive change. As this commission departs in public relations flames we thought it was time to pay our respects and provide the next commission with some advice. Let us review the important failures of Hundt's commission. First, it failed to provide enough pro-competitive, constructive input into the Telecom Act of 1996, opening the door for monopolists and local interests to have their way with the law-makers. As a result of the Act not having the requisite teeth, access charge reform was doomed to fail. So too was a redefinition of universal service policy. Things like 800 service payphone compensation issues should never have developed the way they did. All these issues have been thrown back into the FCC's face by the courts. In addition to the C-Block and other failing wireless issues (WCS and LMDS auctions, tower-siting, etc...) recent decisions to bless the BEL/NYNEX merger (which only expands an existing monopoly) and doom a potential SBC/ATT merger (which would have forced an opening of an RBOCs network) demonstrate a counter-intuitive approach to formulating pro-competitive policy. So here's our quick and dirty primer for the new commission, we believe that the new commission should:

- 1) Embrace centralization; the markets have been doing this for years;
- 2) Understand that communications is two-way; cost-effective multimedia between New York and Los Angeles requires end-to-end control (not necessarily ownership);
- 3) Work with local regulators; make them understand that new technologies get implemented on a wide-area basis first, and only when a market of significant size (national and regional) exists;
- 4) Understand that parts of humpty-dumpty (Ma Bell) have to be put back together again: if the 14 points are observed then there will probably be 5-6 facilities-based STN's in the next 10 years;
- 5) Monopolists and regulators never make risky decisions; competitors do;
- 6) Monopolists and regulators live in the world of averages; competitors live on the margin;
- 7) Give the court system a basic lesson in communications theory (the above 6 points) and emphasize that the monopoly was granted by the pen and can be taken away by the pen (there are no inalienable telecom rights);
- 8) Networks are evolving at a rapid pace (look at the evolution of data networks); there is no correct or most efficient solution for your Office of Plans & Policy to develop;
- 9) Wireless markets have 3 year time horizons, wireline markets maybe 5 years;
- 10) Understand that as it currently stands, the Telecom Act of 1996 is a failure.

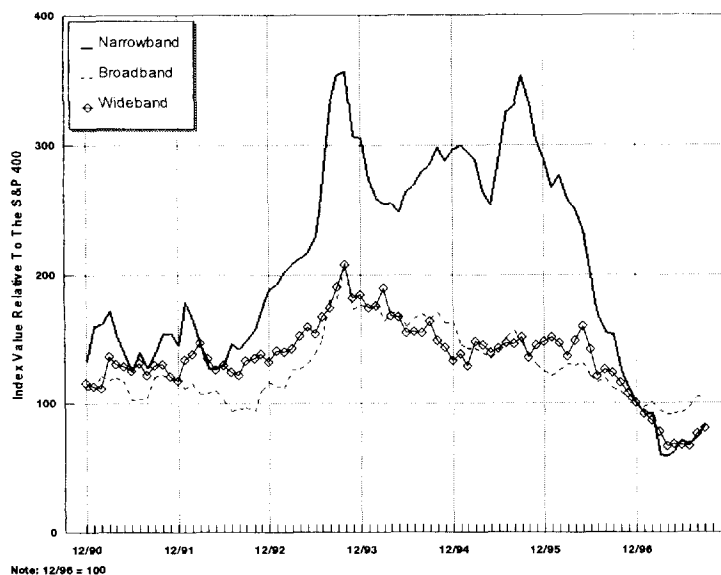


Research

**Michael Elling**  
 (212) 778-4768

**September 22, 1997**  
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**Sector Performance:** Despite big moves in the market indexes (2.6% for the S&P 400, 1.9% for the NASDAQ, and 2.3% for the Dow), wireless managed to outperform, posting gains of 3.4%/3.6%\*. The narrowband sector enjoyed another profitable week as the industry (9.3%/14.5%)\* led the wireless universe in gains on news of pricing stability for advanced services. The wireless rally was truly broad-based; on a market-cap weighted basis, only the PCS industry posted a loss for the week (-5.2%/-5.6%). Broadband wireless (3.1%/-0.1%)\* was weighed down by the PCS carriers and an underperforming domestic cellular industry (2.1%/1.6%)\*, despite a rise in the SMR industry (+4.4%/0.0%)\*. \*(Market cap. wtd./price wtd).



Source: FactSet data

**Company Performance:** PageNet (PAGE—12 5/8, rated Buy) (+9.8%) and Mtel (MTEL—14 1/16, rated Hold) (+6.6%) announced an agreement to resell each others' service. Deal should signal lower pricing pressure for enhanced services. Arch (APGR—9 1/8, rated Buy) gained 40.4%. AirTouch (ATI—36 13/16, rated Buy) (+2.6%) and Centennial (CYCL—18 3/8, not rated) (+6.5%) were the only domestic cellular carriers to outpace the market. Nextel (NXTL—28 9/16, rated Buy) (+4.8%) continued its climb, and the PCS stocks all suffered losses: Powertel (PTEL—18 5/8, not rated) (-6.3%), Omnipoint (OMPT—22 7/16, not rated) (-4.4%), Western Wireless (WWCA—16 7/8, not rated) (-8.2%), and Aerial (AERL—9 1/8, not rated) (-3.9%) all pulled back following recent gains. Winstar gained 10.9% on reseller announcement.

**Strategic:** Pittencrieff (PITC—5 5/8, not rated) shareholders approve Nextel merger. Sprint Spectrum/APC announces GSM roaming agreement with Western Wireless. Sprint PCS announces \$4.95 per month home-rate in-system roaming, and \$19.95 toll-free domestic long-distance. Brite Voice Systems (BVSI—11, not rated) will provide cellular prepaid to TeleSTET in Greece. AT&T (T—44, rated Hold by Guy Woodlief) announces franchise plan that would include wireless carriers Triton, Telecorp, Mercury PCS and Wireless One, and C-LEC Nextlink. Cellular One of Puerto Rico will resell Winstar's (WCII—17 1/8, not rated) wireless C-LEC services. Clearnet (CLNTF—14 15/16, rated Buy) launched Mike service in Ottawa).

**Financial:** Duff&Phelps upgraded Microcell's senior debt to B from B-, while Moody's maintains B3 rating. HighwayMaster (HWYM—8 1/2, not rated) completed \$125 million private placement of notes and warrants.

**Regulatory:** Argentina postponed the bid date for its PCS licenses until October 20. Senate passes a bill outlawing possession of equipment used to clone cellular phones.

**Technology:** Wireless Application Protocol for digital broadband advanced services announced by Nokia, Ericsson, Motorola, Unwired Planet.

**What To Look For:** Sprint PCS and Radio Shack host a luncheon in New York to discuss results to date of their alliance. FCC meets Thursday to discuss C-block financing. Telecom Ops. '97 in New York Thursday and Friday.

## Appendix 1. Spectral Shifts Data—Companies

		Current Price	Last 5 Days*	Month- To-Date	Quarter- To-Date	Year- To-Date	Last 12 Mos.	From 52-Wk. Hi	Market Cap	Net Debt	EV/EBITDA (Latest Qtr. Ann.)
NarrowBand (kHz)		9/19/97	(% Chg)	(% Chg)	(% Chg)	(% Chg)	(% Chg)	(% Chg)	(\$ Mil.)	(\$ Mil.)	
<b>Paging</b>											
Arch Comm	APGR	\$9.13	40.4	46.0	19.7	(2.7)	(31.8)	(35.4)	\$189.8	\$955.2	8.8
American Pag	APP	\$2.38	11.8	0.0	58.3	(49.3)	(60.4)	(61.2)	47.8	158.3	NM
Metrolcall	MCLL	\$6.94	4.7	4.7	54.2	38.3	(10.5)	(14.6)	174.0	328.5	7.4
Mte	MTEL	\$14.06	6.6	14.8	(1.7)	65.4	(3.8)	(16.0)	766.1	387.0	26.5
Pronet	PNET	\$5.94	8.0	6.7	48.4	35.7	(22.1)	(34.9)	74.9	166.4	7.8
PageNet	PAGE	\$12.63	9.8	24.7	43.8	(17.2)	(38.0)	(40.6)	1,295.6	1,700.6	10.0
PageMart	PMWI	\$9.75	1.3	1.3	14.7	47.2	(3.7)	(6.0)	389.3	256.6	26.5
<b>BroadBand (MHz)</b>											
<b>Cellular</b>											
Airtouch Comm	ATI	\$36.81	2.6	8.9	33.9	45.8	29.2	(3.9)	\$18,531.4	\$1,585.0	15.1
Centennial Cellular	CYCL	\$18.38	6.5	15.7	15.7	51.5	42.7	(3.3)	495.2	385.6	15.2
CommNet Cellular	CELS	\$34.44	(0.9)	(1.6)	(0.9)	23.5	19.3	(3.0)	474.1	256.0	13.0
Vanguard Cellular	VOELA	\$14.38	0.4	(1.7)	5.5	(8.7)	(20.1)	(25.8)	579.0	716.7	10.3
Palmer Wireless	PWIR	\$17.38	0.4	0.0	3.0	65.5	(7.3)	(8.1)	483.3	378.6	10.1
360 Comm	XO	\$21.56	(0.6)	17.3	25.9	(7.3)	(11.1)	(16.7)	2,627.1	1,847.3	9.1
U.S. Cellular	USM	\$33.25	2.3	9.9	12.2	19.3	10.8	(1.7)	2,865.6	409.3	11.1
<b>International Cellular/PCS</b>											
BCE Mobile Comm	BCX	\$37.00	0.7	3.7	21.8	24.9	16.1	(1.7)	\$2,566.0	\$391.0	9.9
Millicom Intl. Cellular	MICCF	\$52.00	0.0	2.0	8.9	61.9	37.7	(9.6)	2,503.3	661.3	61.0
Rogers Cantel	RC	\$18.19	(3.0)	(8.5)	(4.0)	(6.1)	(9.1)	(25.0)	1,708.3	1,351.3	9.6
Vodafone	VOD	\$53.00	6.8	4.0	9.4	28.1	54.2	(0.9)	16,250.6	267.0	6.4
Cleartel	CLNTF	\$14.94	4.8	7.7	23.2	35.8	(2.0)	(15.8)	7,307.8	120.8	NM
Orange	ORNGY	\$17.63	1.4	(3.8)	8.5	10.2	20.5	(4.1)	4,223.1	1,205.5	NM
<b>Fulfillment Service</b>											
Lightbridge	LTBG	\$15.88	(3.8)	28.3	108.2	85.4	NA	5.9	\$232.4	(\$21.2)	28.0
<b>SMR</b>											
Nextel	NXTL	\$28.56	4.8	14.0	50.8	118.7	74.4	(3.6)	\$6,914.0	\$3,727.3	NM
Geotek	GOTK	\$4.41	(4.7)	0.7	(19.0)	(38.2)	(53.6)	(55.4)	291.2	192.4	NM
<b>PCS</b>											
Powertel	PTEL	\$18.63	(6.3)	(2.0)	34.2	52.0	(8.0)	(16.3)	\$501.2	\$335.8	NM
Omnipoint	OMPT	\$22.44	(4.4)	7.2	35.0	16.6	(13.7)	(36.8)	1,157.1	1,140.3	NM
Western Wireless	WWCA	\$16.88	(8.2)	12.0	6.3	21.6	16.4	(11.8)	1,181.8	1,048.7	NM
Aerial	AERL	\$9.13	(3.9)	5.0	7.4	12.3	(13.1)	(14.1)	652.6	313.7	NM
<b>WideBand (GHz)</b>											
<b>Wireless Cable/MMDS</b>											
American Telecast	ATEL	\$1.38	18.9	37.5	120.0	(76.1)	(85.9)	(88.2)	\$35.4	\$270.8	NM
CAI Wireless	CAWS	\$1.41	(6.3)	0.0	32.4	40.6	(80.3)	(82.1)	57.0	316.0	NM
Heartland	HART	\$2.63	2.4	50.0	10.5	(80.0)	(86.7)	(89.7)	51.6	236.4	NM
Peoples Choice	PCTV	\$2.69	(2.3)	(10.4)	65.4	(56.1)	(79.7)	(82.1)	34.7	163.9	NM
Wireless One	WIRL	\$3.19	(1.9)	34.2	24.4	(51.9)	(79.1)	(79.1)	54.0	239.9	NM
<b>LMDS</b>											
Cellularvision USA	CVUS	\$7.88	(7.4)	(7.4)	(1.6)	12.5	(18.2)	(33.7)	\$126.0	(\$3.5)	NM
Winstar Comm	WCII	\$17.13	10.9	2.6	28.0	(18.5)	(5.5)	(31.2)	566.2	277.6	NM
Associated Group	AGRPA	\$69.75	(9.4)	(4.1)	74.4	126.8	114.6	(14.4)	1,310.0	131.6	NM
Advanced Radio	ARTT	\$8.38	17.5	9.8	(6.9)	(25.6)	NA	(49.2)	78.6	47.9	NM
<b>Satellit</b>											
Amer. Mob. Sat	SKY	\$7.63	(4.7)	(1.6)	(25.6)	(37.8)	(47.0)	(49.2)	\$191.7	\$202.7	NM
ComSat	CQ	\$23.50	1.3	8.4	(1.3)	(4.6)	(2.1)	(17.5)	1,154.6	631.4	6.5
Orbital Sciences	ORBI	\$20.75	(3.5)	(4.3)	30.7	20.3	12.2	(13.5)	669.6	84.3	11.3
Globalstar	GSTRF	\$49.00	15.0	26.2	60.0	55.6	112.5	(1.5)	1,501.0	300.9	NM
Iridium	IRID	\$43.75	13.6	22.0	141.4	NA	NA	(1.4)	5,942.8	806.9	NM
<b>S&amp;P 40</b>		1,111.92	2.6	5.2	6.6	27.8	37.3	(2.1)			
<b>NASDAQ Composite</b>		1,680.36	1.9	5.9	16.5	30.2	38.6	(0.4)			

Note: !=Single Best Idea; Reported data excludes pending acquisitions and other nonconsolidated assets  
 Source: FactSet data; Prudential Securities Inc. estimates.

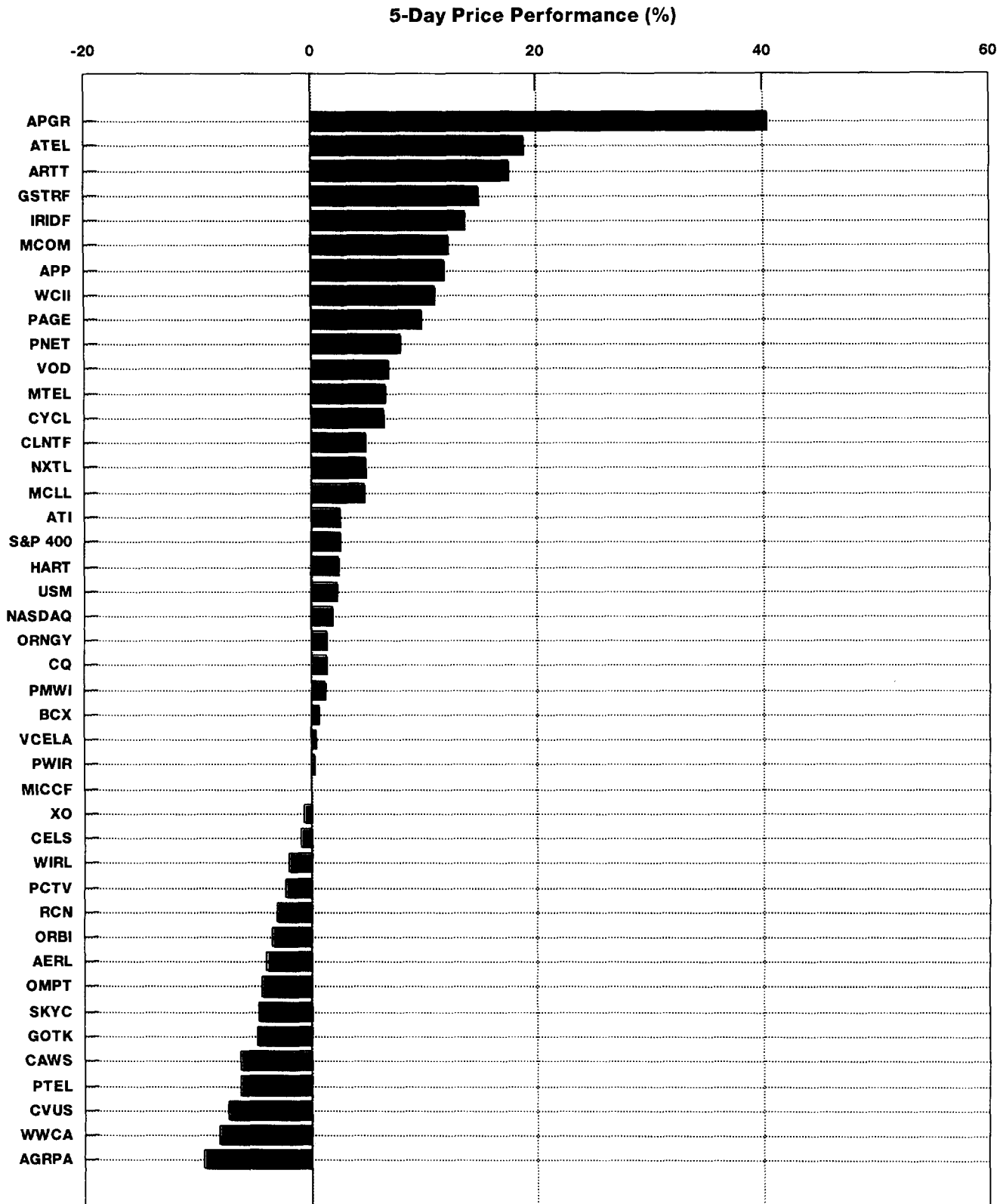
**Appendix 2. Spectral Shifts Data—Indexes**

	Current Price 9/19/97	Last 5 Days (% Chg)	Month- To-Date (% Chg)	Quarter- To-Date (% Chg)	Year- To-Date (% Chg)	Last 12 Mos. (% Chg)	From 52-Wk. Hi (% Chg)	EV/EBITDA (Latest Qtr. Annualized)
<b>Market Cap Weighted Indexes*</b>								
Narrowband	<b>107.03</b>	9.3	18.0	24.2	7.0	(28.3)	(29.6)	18.1
Broadband	<b>134.93</b>	3.1	6.5	21.5	34.9	29.8	(0.0)	NM
Cellular	<b>129.62</b>	3.3	5.6	18.5	29.6	29.5	0.0	NM
Domestic Cellular	<b>133.22</b>	2.1	9.3	29.0	33.2	19.7	0.0	13.9
International Cellular/PCS	<b>126.50</b>	4.5	2.4	10.3	26.5	39.5	(0.0)	NM
SMR	<b>198.02</b>	4.4	13.4	45.7	98.0	56.7	(2.9)	NM
PCS	<b>123.06</b>	(5.2)	5.2	26.5	23.1	(9.5)	(22.2)	NM
Wideband	<b>102.95</b>	6.5	11.2	27.9	3.0	(9.2)	(11.0)	NM
MMDS	<b>36.48</b>	0.5	18.7	36.7	(63.5)	(82.9)	(84.8)	17.1
Satellit	<b>122.70</b>	6.3	12.9	30.6	22.7	31.1	0.0	3.8
LMDS	<b>114.81</b>	0.2	(0.6)	34.6	14.8	6.6	(4.3)	NM
Wireless	<b>129.27</b>	3.4	7.0	22.0	29.3	19.7	(0.2)	NM
Wireline	<b>111.81</b>	2.8	7.4	2.4	11.8	18.4	(1.1)	7.4
<b>Average Weighted Indexes*</b>								
Narrowband	<b>137.94</b>	14.5	17.5	42.5	37.9	(18.4)	(18.7)	31.2
Broadband	<b>133.49</b>	(0.1)	4.9	15.4	33.5	16.7	(1.0)	NM
Cellular	<b>129.07</b>	1.4	3.8	12.3	29.1	20.2	(0.3)	4.7
Domestic Cellular	<b>131.12</b>	1.6	6.9	14.3	31.1	14.9	(0.5)	12.0
International Cellular/PCS	<b>124.58</b>	1.2	(0.5)	9.3	24.6	25.6	(2.2)	NM
SMR	<b>126.05</b>	0.0	7.6	12.7	26.0	(0.7)	(4.9)	NM
PCS	<b>137.62</b>	(5.6)	5.9	22.1	37.6	7.8	(5.6)	NM
Wideband	<b>102.95</b>	6.5	11.2	27.9	3.0	(9.2)	(11.0)	11.1
MMDS	<b>82.26</b>	2.5	26.3	71.4	(17.7)	(62.9)	(66.7)	30.5
Satellite/38 GHz	<b>122.70</b>	6.3	12.9	30.6	22.7	31.1	0.0	2.8
LMDS	<b>126.74</b>	2.6	1.0	23.2	26.7	15.7	(2.5)	NM
Wireless	<b>128.01</b>	3.6	10.0	28.4	28.0	(2.8)	(3.5)	8.5
Wireline	<b>111.81</b>	2.8	7.4	2.4	11.8	18.4	(1.1)	9.2
<b>S&amp;P 40</b>	<b>1,111.92</b>	2.6	5.2	6.6	27.8	37.3	(2.1)	
<b>NASDAQ Composite</b>	<b>1,680.36</b>	1.9	5.9	16.5	30.2	38.6	(0.4)	

\* (12/96=100)

Source: FactSet data

## Appendix 3. Price Performance Of Wireless Stocks





#### **Appendix 4. Recent Wireless Services Reports**

<b>Report Title</b>	<b>Heading</b>	<b>Type</b>	<b>Date</b>	<b>Pages</b>
Spectral Shifts	Who said telecom is a commodity?	Industry Update	07/28/97	6
AirTouch Communications	Morris Trust exemption not approved for UMG/ATI deal...	Company Update	07/29/97	8
Paging Network	More like Voice(Not)Now as PAGE shifts focus towards one-way	Company Update	07/30/97	6
Arch Communications	Arch quarter is in line with expectations...	Company Update	07/30/97	6
Palmer Wireless	Palmer reports in line with expectations...	Company Update	07/30/97	8
Lightbridge Inc.	Profitability growth and new contracts highlight 2Q...	Company Update	07/30/97	8
Clearnet	CLNTF raises C\$375 mil. in new debt and equity—raising target...	Company Update	08/01/97	8
Spectral Shifts	Wireless score—new entrants 7 incumbents 10...	Industry Update	08/04/97	6
Metrocall	Metrocall reports strong results for the second quarter...	Company Update	08/06/97	6
Paging Network	Jack Frazee named Chairman, President, and CEO...	Company Update	08/06/97	6
Wireless One	Stormy weather rains on results while future may be sunnier...	Company Update	08/07/97	6
ProNet	Second quarter weighted toward indirect channels...	Company Update	08/08/97	6
Spectral Shifts	Ten Cents Per Minute Is The Future Of Wireless...	Industry Update	08/11/97	6
Nextel	NXTL's ARPU is on the rise while costs are trending down...	Company Update	08/12/97	8
Clearnet	Clearnet exceeds our sub and ARPU numbers...	Company Update	08/15/97	8
Metrocall	Merger with ProNet highlights synergies...	Company Update	08/15/97	6
Paging Network	Resignation of CFO lets Frazee hand pick management...	Company Update	08/18/97	6
Spectral Shifts	Wireless wins the wild west of the information age...	Industry Update	08/18/97	6
Broadband Wireless	Second quarter Cellular/PCS results are in...	Industry Update	08/21/97	12
Spectral Shifts	PCS handset fall fashion preview...	Industry Update	08/25/97	6
Spectral Shifts	Where's all that usage coming from...	Industry Update	09/02/97	6
Wireless One	WIRL aligns with DirecTV to go after the MDU market...	Company Update	09/04/97	6
Paging Network	Visit with PageNet CEO sheds light on new priorities...	Company Update	09/08/97	6
Lightbridge Inc.	Increasing PCS activations could provide upside for LTBG...	Company Update	09/08/97	8
Clearnet	Demand for Clearnet's MiKe looks high...	Company Update	09/08/97	8
Spectral Shifts	800 model is the future of universal service and wireless industry...	Industry Update	09/08/97	6
Spectral Shifts	Wireless cloud part I: one of the most powerful booms ever...	Industry Update	09/15/97	6
Paging Network	PAGE announces cross-marketing agreement with Mtel...	Company Update	09/17/97	6

Source: Prudential Securities Inc.

97-3221

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Prudential Securities Inc. and/or its affiliates have managed or co-managed a public offering of securities and/or have performed investment banking or other services for Arch, Clearnet, Nextel, and PageNet.

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**Additional information on the securities discussed herein is available upon request.**

# Spectral Shifts

Michael Elman  
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September 29, 1997

## **Who Is Really To Blame?**

Last week we put together a list of 10 suggestions for the future FCC commission to observe as they attempt to deregulate in this telecom maelstrom. During the week we were lucky to participate in a seminar with an FCC official to review the C-block restructuring plan. During the seminar it suddenly became apparent where the real fault lay, and what the future FCC (and other telecom deregulators) can do about changing policy that satisfies all parties. The realization is consistent with not only last week's piece, but one we wrote about future 800-like service offerings being the answer to universal service.

The real blame lies with the inherent desire of the regulators (federal and state) to help out the little guy, and as well, a major aversion to centralization brought on by the trust-buster mentality of the last century and the bitter fight against socialism in this century. The result has been, as we pointed out last week, a severe balkanization of telemedia assets over the past 100 years that have enriched a few lucky individuals and the investment bankers who worked long and hard to put the pieces back together again.

It was during the seminar that the realization hit as to how to satisfy both ends. The answer, it would appear, lies in the competitive long-distance and paging networks. What developed in these industries (out of balkanized, or regional, start-ups) were world-class, end-to-end, national, digital networks. In addition, multiple networks resulted in competitively-defined pricing and interconnection levels that facilitated full-fledged, marketing-driven resellers. A number of these resellers (WorldCom) brought so much value-add to the equation that they ultimately became facilities-based networks.

So the answer, we believe, is to license or auction only multiple national frequencies and force interconnection and minimum competitive pricing bands within broad ranges (bandwidth, commodity, wholesale, and retail costs). This establishes from the get-go a platform for resellers, instead of evolving into one. Nationwide networks would be developed more rapidly, while resellers (with minimal capital investments and a few bright ideas) would be able to quickly generate incremental value-added services.

So all four parties win: facility providers build out networks more effectively, little guys get into the game and make big money, investment bankers raise capital for everybody and make loads of M&A fees as the inevitable construction/destruction cycle of competitive networks takes root, and the public gets a greater variety of less expensive services.

The regulators don't have to do much, thereafter!

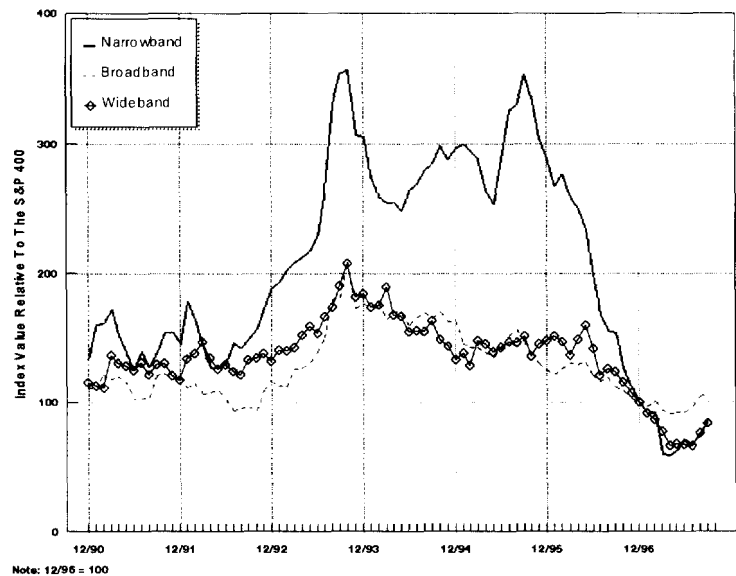


**Michael Elling**  
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**September 29, 1997**  
**Page 2**

**Sector Performance:** Wireless stocks enjoyed another week of outperformance, posting gains of 0.5%/2.1%\* versus a loss of 0.6% in the S&P 400 and gains of 0.1% in both the NASDAQ Composite and the Dow. We believe investors are applauding impressive subscriber addition, improved profitability, and brighter prospects throughout the wireless sector. The wideband sector came to life this week (3.6%/3.6%)\* supported by gains in the MMDS (5.2%/5.7%)\* and Satellite (3.5%/3.5%) industries. Domestic cellular (-0.5%/0.8%)\*, SMR (-1.6%/-2.8%)\*, and PCS (-0.9%/0.0%) lost ground to the market on a market cap weighted basis. For the third quarter, wireless stocks jumped 22.7%/31.1%\* versus gains in the S&P 400 of 6.0%, in the NASDAQ of 16.7%, and in the Dow of 3.2%. We believe wireless stocks have clearly turned the corner.

\* (Market-cap. weighted/Price weighted).



Source: FactSet data

**Company Performance:** Mtel (MTEL—16 1/2, not rated) moved up 17.3% for the week, capping a 94% run in 1997 based on favorable results from the enhanced messaging launch in April. Clearnet (CLNTF—17, rated Buy) advanced 13.8% as the company announced plans for 600 retail outlets for its PCS service when launched in October. CellularVision (CVUS—8 1/2, not rated) advanced 7.9% on news the company received expanded licenses from the FCC and will not have to bid on them at auction later this year.

**Strategic:** Winstar (WCII—17 3/8, not rated) (+1.5%) launched switched services in Dallas, Washington D.C., and Newark, and received authorization to operate as a CLEC in Kansas. USWest (USW—38 11/16, rated Hold by Guy Woodlief) (+2.3%) launches 10 MHz PCS service in Denver offering one number for home phone and portable. Sprint PCS opens 6,000 "Sprint Stores" in Radio Shacks nationwide. Mobilcom, a subsidiary of Nextel, awards \$40 million contract to Motorola (MOT—68 1/2, rated Buy by Luke Szymczak) (+3.0%) to build Mexico City iDEN network. Motorola also announced \$26 million contract with Nextel (NXTL—28 1/8, rated Buy) (-1.5%) International for iDEN infrastructure in Brazil. ICG (ICGX—19 5/8, not rated) (+7.9%) and ChoiceCom announced they will supplement their fiber-based CLEC networks with Advanced Radio's (AART—8 7/8, not rated) (+6.0%) wireless design. Commnet (CELS—34 15/16, rated Hold) (+1.5%) shareholders approve Blackstone merger.

**Financial:** PageNet (PAGE—12 9/16, rated Buy) (-0.5%) announced the write off of 415,000 pagers under a national reseller agreement. With the move, the company restated 1996 net income and EBITDA \$0.22 lower and 1H 1997 net income \$0.05 higher. Japan's Nippon Telegraph & Telephone Corp. (NTT—45, not rated) (-0.4%) will invest \$100 million in Associated Group's (AGRPA—67, not rated) (-3.9%) Teligent unit. Rogers Cantel (RCN—17 3/4, not rated) (-2.4%) prices US\$275 million in senior 2007 debt at 8.3% and US\$215 2007 debt at 8.8%. Palmer Wireless (PWIR—17 3/8, rated Hold) (0.0%) shareholders approved the merger with Price Communications.

**Regulatory:** The FCC offered four alternatives to C-block PCS bidders to mitigate debt burden: a) status quo—the make-no-changes approach; b) disaggregation—return of half of a bidder's licenses, with commensurate debt forgiveness and forfeiture of 50% of the deposit; c) amnesty—return all of the licenses for forgiveness of debt with forfeiture of the



## Appendix 1. Spectral Shifts Data—Companies

		Current Price	Last 5 Days*	Month- To-Date	Quarter- To-Date	Year- To-Date	Last 12 Mos.	From 52-Wk. Hi	Market Cap	Net Debt	EV/EBITDA
		9/26/97	(% Chg)	(% Chg)	(% Chg)	(% Chg)	(% Chg)	(% Chg)	(\$ Mil.)	(\$ Mil.)	(Latest Qtr. Ann.)
NarrowBand (kHz)											
Pagin											
Arch Comm	APGR	\$8.38	(8.2)	34.0	9.8	(10.7)	(39.4)	(40.7)	\$174.2	\$955.2	8.7
American Pag	APP	\$2.00	(15.8)	(15.8)	33.3	(57.3)	(65.2)	(67.3)	40.2	158.3	NM
Metrocall	MCLL	\$7.38	6.3	11.3	63.9	47.0	1.7	(7.8)	184.9	328.5	7.6
Mtel	MTEL	\$16.50	17.3	34.7	15.3	94.1	5.6	(1.5)	898.9	387.0	29.6
Pronet	PNET	\$6.25	5.3	12.4	56.3	42.9	(16.7)	(31.5)	78.9	166.4	8.0
PageNet	PAGE	\$12.56	(0.5)	24.1	43.1	(17.6)	(38.0)	(38.7)	1,289.2	1,700.6	10.0
PageMart	PMWI	\$9.81	0.6	1.9	15.4	48.1	(3.1)	(4.3)	391.8	256.6	26.6
BroadBand (MHz)											
Cellular											
Airtouch Comm	ATI	\$36.56	(0.7)	8.1	33.0	44.8	31.8	(4.6)	\$18,405.6	\$1,585.0	15.1
Centennial Cellular	CYCL	\$18.00	(2.0)	13.4	13.4	48.5	34.6	(5.3)	485.1	385.6	15.0
CommNet Cellular	CELS	\$34.94	1.5	(0.2)	0.5	25.3	17.4	(1.6)	480.9	256.0	13.1
Vanguard Cellular	VCELA	\$15.31	6.5	4.7	12.4	(2.8)	(21.0)	(21.0)	616.8	716.7	10.6
Palmer Wireless	PWIR	\$17.38	0.0	0.0	3.0	65.5	(2.8)	(5.9)	483.3	378.6	10.1
360 Comm	XO	\$20.44	(5.2)	11.2	19.3	(12.1)	(16.6)	(21.0)	2,490.1	1,847.3	8.8
U.S. Cellular	USM	\$35.19	5.8	16.3	18.8	26.2	14.4	0.0	3,032.6	409.3	11.7
International Cellular/PCS											
BCE Mobile Comm	BCX	\$35.00	(5.4)	(1.9)	15.2	18.1	6.7	(7.0)	\$2,427.3	\$391.0	9.4
Millicom Intl. Cellular	MICC	\$53.75	3.4	5.4	12.6	67.3	39.6	(6.5)	2,587.6	661.3	62.6
Rogers Cantel	RCN	\$17.75	(2.4)	(10.7)	(6.3)	(8.4)	(10.7)	(26.8)	1,667.2	1,351.3	9.5
Vodafone	VOD	\$53.79	1.5	5.6	11.0	30.0	56.5	(0.6)	16,492.6	1,119.5	6.9
Clearnet	CLNT	\$17.00	13.8	22.5	40.2	54.5	12.4	(4.2)	8,316.8	120.8	NM
Orange	ORNGY	\$18.13	2.8	(1.0)	11.5	13.3	27.2	(1.4)	4,342.9	1,205.5	NM
Fulfillment Service											
Lightbridge	LTBG	\$17.13	7.9	38.4	124.6	100.0	NA	7.4	\$250.7	(\$21.2)	30.4
SMR											
Nextel	NXTL	\$28.13	(1.5)	12.2	48.5	115.3	59.6	(5.1)	\$6,808.0	\$3,727.3	NM
Geotek	GOTK	\$4.22	(4.3)	(3.6)	(22.4)	(40.8)	(51.1)	(53.8)	278.8	192.4	NM
PCS											
Powertel	PTEL	\$18.63	0.0	(2.0)	34.2	52.0	(15.3)	(16.3)	\$501.2	\$335.8	NM
Omnipoint	OMPT	\$21.94	(2.2)	4.8	32.0	14.0	(15.6)	(38.2)	1,131.3	1,140.3	NM
Western Wireless	WWCA	\$17.13	1.5	13.7	7.9	23.4	5.4	(10.5)	1,199.3	1,048.7	NM
Aerial	AERL	\$9.19	0.7	5.8	8.1	13.1	(8.1)	(12.5)	657.1	313.7	NM
WideBand (GHz)											
Wireless Cable/MMDS											
American Telecast	ATEL	\$1.31	(4.5)	31.3	110.0	(77.2)	(87.0)	(88.7)	\$33.8	\$270.8	NM
CAI Wireless	CAWS	\$1.47	4.4	4.4	38.2	46.9	(78.6)	(80.1)	59.5	316.0	NM
Heartland	HART	\$2.88	9.5	64.3	21.1	(78.1)	(88.0)	(88.7)	56.5	236.4	NM
Peoples Choice	PCTV	\$3.00	11.6	0.0	84.6	(51.0)	(78.4)	(80.0)	38.8	163.9	NM
Wireless One	WIRL	\$3.31	3.9	39.5	29.3	(50.0)	(77.5)	(78.3)	56.1	239.9	NM
LMDS											
Cellularvision USA	CVUS	\$8.50	7.9	0.0	6.3	21.4	(15.0)	(28.4)	\$136.0	(\$3.5)	NM
Winstar Comm	WCII	\$17.38	1.5	4.1	29.9	(17.3)	6.9	(30.2)	574.5	277.6	NM
Associated Group	AGRPA	\$67.00	(3.9)	(7.9)	67.5	117.9	123.3	(17.8)	1,258.3	131.6	NM
Advanced Radio	ARTT	\$8.88	6.0	16.4	(1.4)	(21.1)	NA	(46.2)	83.3	47.9	NM
Satellite											
Amer. Mob. Sat	SKYC	\$10.00	31.1	29.0	(2.4)	(18.4)	(30.4)	(32.2)	\$251.4	\$202.7	NM
ComSat	CQ	\$23.44	(0.3)	8.1	(1.6)	(4.8)	2.5	(17.8)	1,151.5	631.4	6.5
Orbital Sciences	ORBI	\$23.13	11.4	6.6	45.7	34.1	27.6	(3.6)	746.2	84.3	12.5
Globalstar	GSTR	\$49.50	1.0	27.5	61.6	57.1	103.1	(1.5)	1,516.3	300.9	NM
Iridium	IRIDF	\$43.31	(1.0)	20.7	139.0	NA	NA	(2.9)	5,883.4	806.9	NM
S&P 40		1,105.33	(0.6)	4.5	6.0	27.1	36.3	(2.7)			
NASDAQ Composite		1,682.24	0.1	6.0	16.7	30.3	37.0	(1.2)			

Note: !=Single Best Idea; Reported data excludes pending acquisitions and other nonconsolidated assets  
 Source: FactSet data; Prudential Securities Inc. estimates..



## Appendix 2. Spectral Shifts Data—Indexes

	Current Price 9/26/97	Last 5 Days (% Chg)	Month- To-Date (% Chg)	Quarter- To-Date (% Chg)	Year- To-Date (% Chg)	Last 12 Mos. (% Chg)	From 52-Wk. HI (% Chg)	EV/EBITDA (Latest Qtr. Annualized)
<b>Market Cap Weighted Indexes*</b>								
Narrowband	111.39	4.1	22.8	29.3	11.4	(25.6)	(25.6)	18.9
Broadband	135.13	0.1	6.6	21.7	35.1	29.9	(1.0)	NM
Cellular	130.07	0.3	6.0	19.0	30.1	30.7	(1.1)	NM
Domestic Cellular	132.55	(0.5)	8.8	28.3	32.6	20.5	(2.7)	13.8
International Cellular/PCS	128.18	1.3	3.7	11.8	28.2	41.3	0.0	NM
SMR	194.77	(1.6)	11.5	43.3	94.8	46.3	(4.5)	NM
PCS	121.96	(0.9)	4.3	25.3	22.0	(12.4)	(22.9)	NM
Wideband	106.63	3.6	15.2	32.4	6.6	(5.9)	(7.8)	NM
MMDS	38.36	5.2	24.8	43.7	(61.6)	(83.0)	(84.0)	12.6
Satellite	127.05	3.5	16.9	35.2	27.1	37.1	0.0	3.9
LMDS	114.99	0.2	(0.4)	34.8	15.0	15.5	(4.1)	NM
Wireless	129.97	0.5	7.6	22.7	30.0	20.2	(0.5)	NM
Wireline	113.15	1.2	8.7	3.7	13.2	22.6	0.0	NA
<b>Average Weighted Indexes*</b>								
Narrowband	135.54	(1.7)	15.4	40.0	35.5	(19.0)	(19.0)	30.8
Broadband	134.45	0.7	5.7	16.3	34.4	16.0	(0.4)	NM
Cellular	129.65	0.4	4.2	12.8	29.6	19.4	(0.3)	3.8
Domestic Cellular	132.16	0.8	7.7	15.2	32.2	14.1	(0.4)	12.1
International Cellular/PCS	124.52	(0.0)	(0.6)	9.2	24.5	25.1	(2.3)	NM
SMR	122.52	(2.8)	4.6	9.5	22.5	(2.5)	(7.5)	NM
PCS	137.66	0.0	6.0	22.2	37.7	3.7	(5.6)	NM
Wideband	106.63	3.6	15.2	32.4	6.6	(5.9)	(7.8)	10.8
MMDS	86.97	5.7	33.5	81.2	(13.0)	(62.4)	(64.8)	29.9
Satellite/38 GHz	127.05	3.5	16.9	35.2	27.1	37.1	0.0	2.8
LMDS	131.19	3.5	4.5	27.5	31.2	25.7	0.0	NM
Wireless	130.73	2.1	12.3	31.1	30.7	(1.2)	(1.2)	8.1
Wireline	113.15	1.2	8.7	3.7	13.2	22.6	0.0	NA
<b>S&amp;P 400</b>	<b>1,105.33</b>	<b>(0.6)</b>	<b>4.5</b>	<b>6.0</b>	<b>27.1</b>	<b>36.3</b>	<b>(2.7)</b>	
<b>NASDAQ Composite</b>	<b>1,682.24</b>	<b>0.1</b>	<b>6.0</b>	<b>16.7</b>	<b>30.3</b>	<b>37.0</b>	<b>(1.2)</b>	

\* (12/96=100)

Source: FactSet data

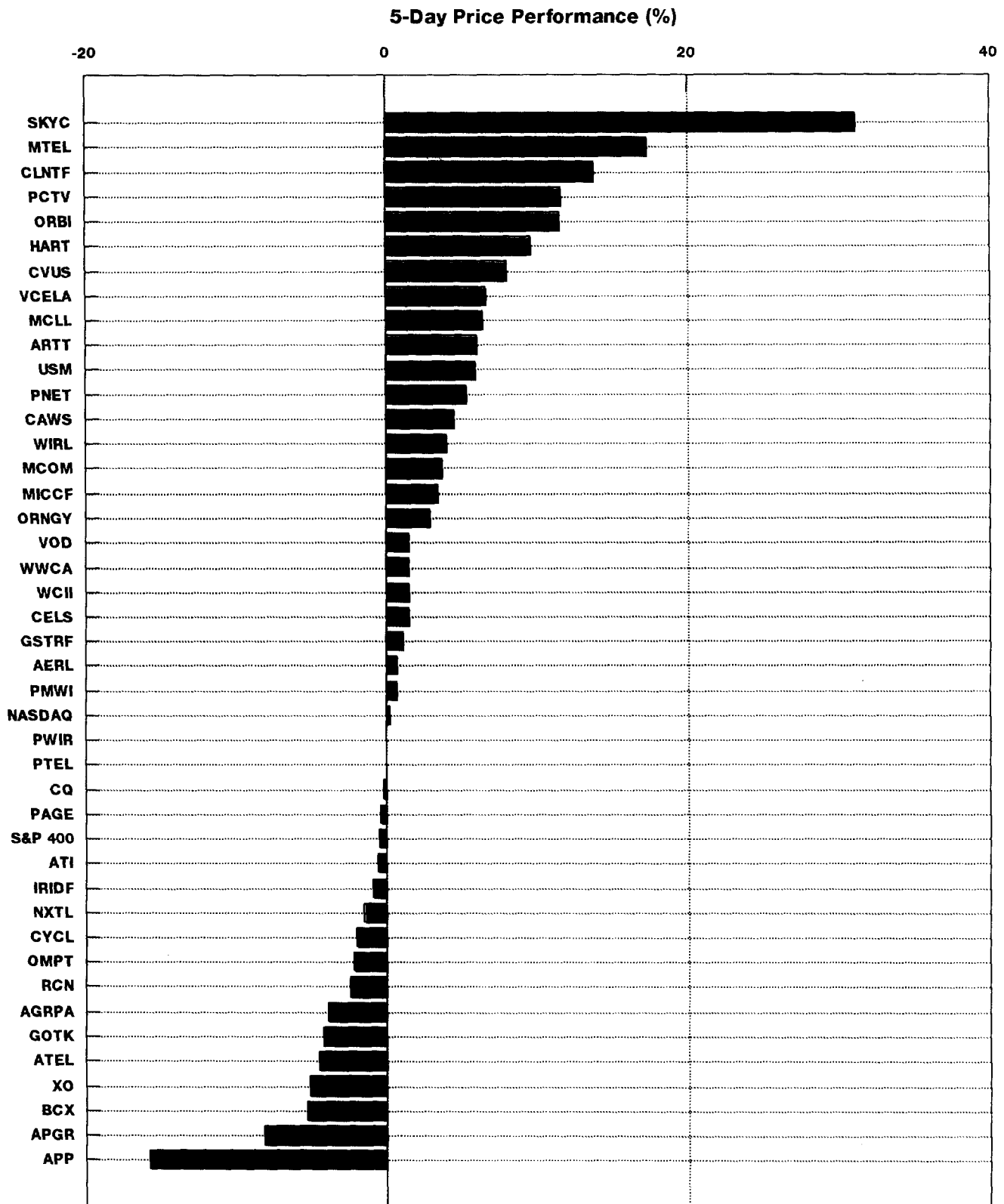
deposit already made; d) prepayment—purchase at bid value any or all licenses outstanding (as long as all BTAs in an MTA are purchased) while forfeiting 30% of the down payment if it is used for payment.

**Technology:** AT&T Wireless Services (T—45 7/16, rated Hold by Guy Woodlief) (+3.3%) reportedly plans to relaunch its PocketNet Cellular Digital Packet Data (CDPD) wireless internet access product next month with an unlimited-use plan.

**What To Look For:** Monday November 10th is Wireless Telecom Day at Prudential Hi-Tech Conference.



## Appendix 3. Price Performance Of Wireless Stocks



## Appendix 4 Recent Wireless Services Reports

Report Title	Headline	Type	Date	Pages
Spectral Shifts	PageNet's earnings are solid, but not as strong as expected	Company Update	07/28/97	6
AirTel	Cellular/PCS results are solid, but not as strong as expected	Company Update	07/29/97	8
Paging Network	PageNet's earnings are solid, but not as strong as expected	Company Update	07/30/97	6
AirTel	Cellular/PCS results are solid, but not as strong as expected	Company Update	07/30/97	6
Palmer Wire	Palmer's earnings are solid, but not as strong as expected	Company Update	07/30/97	8
Lightbridge	Lightbridge's earnings are solid, but not as strong as expected	Company Update	07/30/97	8
Clearnet	Clearnet raises Q3 1997 new debt and equity financing target	Company Update	08/01/97	8
Spectral Shifts	Wireless score—new entrants 7, incumbents 10	Industry Update	08/04/97	6
Metrocall	Metrocall reports strong results for the second quarter	Company Update	08/06/97	6
Paging Network	Jack Frazee named Chairman, President, and CEO	Company Update	08/06/97	6
Wireless One	Stormy weather rains on results while future may be sunnier	Company Update	08/07/97	6
ProNet	Second quarter weighted toward indirect channels	Company Update	08/08/97	6
Spectral Shifts	Ten Cents Per Minute Is The Future Of Wireless	Industry Update	08/11/97	6
Nextel	NXTL's ARPU is on the rise while costs are trending down	Company Update	08/12/97	8
Clearnet	Clearnet exceeds our sub and ARPU numbers	Company Update	08/15/97	8
Metrocall	Merger with ProNet highlights synergies	Company Update	08/15/97	6
Paging Network	Resignation of CFO lets Frazee hand pick management	Company Update	08/18/97	6
Spectral Shifts	Wireless wins the wild west of the information age	Industry Update	08/18/97	6
Broadband Wireless	Second quarter Cellular/PCS results are in	Industry Update	08/21/97	12
Spectral Shifts	PCS handset fall fashion preview	Industry Update	08/25/97	6
Spectral Shifts	Where's all that usage coming from	Industry Update	09/02/97	6
Wireless One	WIRL aligns with DirecTV to go after the MDU market	Company Update	09/04/97	6
Paging Network	Visit with PageNet CEO sheds light on new priorities	Company Update	09/08/97	6
Lightbridge Inc.	Increasing PCS activations could provide upside for LTBG	Company Update	09/08/97	8
Clearnet	Demand for Clearnet's MiKe looks high	Company Update	09/08/97	8
Spectral Shifts	800 model is the future of universal service and wireless industry	Industry Update	09/08/97	6
Spectral Shifts	Wireless cloud part I: one of the most powerful booms ever	Industry Update	09/15/97	6
Paging Network	PAGE announces cross-marketing agreement with Mtel	Company Update	09/17/97	6
Spectral Shifts	Recommendations for the next FCC commissioners	Industry Update	09/22/97	6

Source: Prudential Securities Inc.

97-3289

Prudential Securities Inc. makes a primary over-the-counter market in the shares of Clearnet, Nextel, PageNet, and Palmer Wire ss.

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